

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :
:
Peter Stouffer, et al. :
:
Serial No.: Not yet assigned : Group Art Unit: Not yet Assigned
(continuation of 09/907,744) :
:
Filed: Herewith : Examiner: Not yet assigned
:
Title: PROGRAMMABLE ELECTRONIC DEVICE

PRELIMINARY AMENDMENT UNDER 37 C.F.R. § 1.115

Assistant Commissioner for Patents
Box Non-Fee Amendment
Washington D.C. 20231

Sir:

Prior to the first examination, Applicants request that the above referenced application be amended as shown below.

IN THE SPECIFICATION:

Please amend the specification as follows:

On page 1, after the title, please add:

--CLAIM OF PRIORITY

This application is a continuation of the U.S. utility patent application having a serial number 09/907,744, entitled Programmable Electronic Device, filed July 19, 2001, which is incorporated herein by reference in its entirety.--

On page 6, delete the last paragraph (which continues to page 7) and replace it with the following new paragraph:

For example, the module 12 may be attached to the housing 14 by a housing port 16, which may be a pin or receptacle connector on the housing 14, that can accept the module 12. In an exemplary embodiment, the module 12 may include a module port 17 (FIG. 7). The module port 17 may include a pin receptacle connector with up to 40 pin receptacles, and the housing port 16 of the housing 14 may include a 40-pin connector. It should be understood that the connector 17 and pin connector 16 could be provided with more, or less, than 40 pins depending on the features to be provided by the control system, and the connection established may be a serial or parallel connection. For example, Fig. 7 illustrates an embodiment with a 44-pin connector. The housing port 16 and the module port 17 may have any number or type of terminal. The housing port 16 serves as the mechanism for establishing communication between the interface module 15 and the feature set module 12.

On page 8, delete the last paragraph (which continues to page 9) and replace it with the following new paragraph:

As shown in FIG. 4, the control system 10 may also include ports having pin receptacles that can be utilized to connect the interface module 15 and other components of the alarm system, e.g., siren, ignition system, motion sensor, lights, etc. In a vehicle control system, the module 12 may be used to configure safety, security, and other function/features related to a vehicle and/or a user of a vehicle. Thus, the electronic device 15 may serve as an input/output interface with relays and transistors to drive external loads, i.e., loads associated with a vehicle control system. The vehicle control system may also include various sensors, such as an on-

board shock sensor and an interior theft sensor, which can be utilized to protect the vehicle's security, and which may be enabled by module 12. An example of an on-board shock sensor is described in U.S. Patent 6,043,734 to Mueller et al., the disclosure of which is incorporated by reference. The electronic device 15 may also include a radio frequency (RF) receiver that is able to receive signals from a transmitter, so that the features/functions of the module and/or vehicle control system can be operated remotely. As shown in FIG. 4, the electronic device may have various ports for interfacing with external loads, such as a port to interface with a means for overriding a vehicle immobilizer, a port for interfacing with a multiplex module, and/or a port for interface with a hardware/software cartridge (48 in Fig. 5).

On page 8, delete the first paragraph and replace it with the following new paragraph:

FIG. 7 illustrates the numbering system of port 17 of module 12, in accordance with the present invention. In an exemplary embodiment, port 17 includes up to 44 receptacles, positioned and sized to receive and correspond to one or more pins of port 16 of housing 14 of the alarm system 10. The pin receptacles of the connector 17 form two rows in parallel, such that each pin receptacle is positioned to be numbered corresponding to a position of a pin in one of the rows of the pin connector of the housing 14. Likewise, the pin connector of port 16 of housing 14, has two rows of pins, positioned to be numbered corresponding to a position of a pin receptacle of the feature set module 12. One of the rows includes receptacle positions 1-22, and the other now includes positions 23-44. For the connector of the feature set module 12, pin receptacle positions 1 and 40 are located opposite each other at one end of each row, and receptacle positions 23 and 24 are also located opposite each other at the other ends end of each row.

Likewise, for the pin connector of the housing 14, pin positions 1 and 44 are located opposite each other at one end of each row, and pin positions 23 and 24 are also located opposite each other at the other ends of each row. The connection may be serial or parallel. Further, it is not necessary that the connector of the feature set module 12 contain 44 pin receptacles. Similarly, it is not necessary that the connector of the interface module 15 contain 44 pins. Rather, at least one pin receptacle of the feature set module 12 must have corresponding functionality as follows:

IN THE CLAIMS:

1. (Amended) A vehicle control system, comprising:

an interface module connected to an electronic input and output device; and

a feature set module for detachably coupling to said interface unit, wherein said feature set module contains programming for controlling functions of an alarm system.

10. (Amended) A method of modifying functions of a vehicle control system comprising steps of:

removing a first feature set module from a vehicle control system; and

replacing said first feature set module with a second feature set module programmed to provide different functionality.

REMARKS

No new matter is introduced by the amendments made herein.

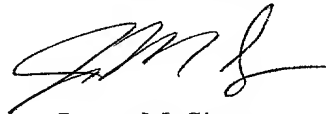
If the Examiner believes that there is any issue which could be resolved by a telephone or personal interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this Amendment, or credit any overpayment, to deposit account no. 50-0436.

Respectfully submitted,

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APPENDIX

VERSION WITH MARKING TO SHOW CHANGES MADEIN THE SPECIFICATION:**Page 6, last paragraph which continues onto Page 7:**

For example, the module 12 may be attached to the housing 14 by a housing port 16, which may be a pin or receptacle connector on the housing 14, that can accept the module 12. In an exemplary embodiment, the module 12 may include a module port 17 (FIG. 7). The module port 17 may include a pin receptacle connector with up to 40 pin receptacles, and the housing port 16 of the housing 14 may include a 40-pin connector. It should be understood that the connector 17 and pin connector 16 could be provided with more, or less, than 40 pins depending on the features to be provided by the control system, and the connection established may be a serial or parallel connection. For example, Fig. 7 illustrates an embodiment with a 44-pin connector. The housing port 16 and the module port 17 may have any number or type of terminal. The housing port 16 serves as the mechanism for establishing communication between the interface module 15 and the feature set module 12.

Page 8, last paragraph which continues onto Page 9:

As shown in FIG. 4, the control system 10 may also include ports having pin receptacles that can be utilized to connect the interface module 15 and other components of the alarm system, e.g., siren, ignition system, motion sensor, lights, etc. In a vehicle control system, the module 12 may be used to configure safety, security, and other function/features related to a vehicle and/or a user of a vehicle. Thus, the electronic device [18] 15 may serve as an input/output interface with relays and transistors to drive external loads, i.e., loads associated

with a vehicle control system. The vehicle control system may also include various sensors, such as an on-board shock sensor and an interior theft sensor, which can be utilized to protect the vehicle's security, and which may be enabled by module 12. An example of an on-board shock sensor is described in U.S. Patent 6,043,734 to Mueller et al., the disclosure of which is incorporated by reference. The electronic device 15 may also include a radio frequency (RF) receiver that is able to receive signals from a transmitter, so that the features/functions of the module and/or vehicle control system can be operated remotely. As shown in FIG. 4, the electronic device may have various ports for interfacing with external loads, such as a port to interface with a means for overriding a vehicle immobilizer, a port for interfacing with a multiplex module, and/or a port for interface with a hardware/software cartridge [48] (48 in Fig. 5).

Page 7 first paragraph:

FIG. 7 illustrates the numbering system of port 17 of module 12, in accordance with the present invention. In an exemplary embodiment, port 17 includes up to [40] 44 receptacles, positioned and sized to receive and correspond to one or more pins of port 16 of housing 14 of the alarm system 10. The pin receptacles of the connector 17 form two rows in parallel, such that each pin receptacle is positioned to be numbered corresponding to a position of a pin in one of the rows of the pin connector of the housing 14. Likewise, the pin connector of port 16 of housing 14, has two rows of pins, positioned to be numbered corresponding to a position of a pin receptacle of the feature set module 12. One of the rows includes receptacle positions 1-22, and the other now includes positions 23-[40] 44. For the connector of the feature set module 12, pin receptacle positions 1 and 40 are located opposite each other at one end of each row, and receptacle

positions 23 and 24 are also located opposite each other at the other ends end of each row. Likewise, for the pin connector of the housing 14, pin positions 1 and [40] 44 are located opposite each other at one end of each row, and pin positions 23 and 24 are also located opposite each other at the other ends of each row. The connection may be serial or parallel. Further, it is not necessary that the connector of the feature set module 12 contain [40] 44 pin receptacles. Similarly, it is not necessary that the connector of the interface module 15 contain [40] 44 pins. Rather, at least one pin receptacle of the feature set module 12 must have corresponding functionality as follows:

IN THE CLAIMS:**Claim 1 is amended as follows:**

1. A vehicle control system, comprising:

an interface module connected to an electronic input and output device[s]; and

a feature set module for detachably coupling to said interface unit, wherein said [interface unit] feature set module contains programming for controlling functions of [said] an alarm system.

Claim 10 is amended as follows:

10. A method of modifying functions of a vehicle control system comprising steps of:

removing a first feature set module from [said alarm] a vehicle control system; and

replacing said first feature set module with a second feature set module programmed to provide different functionality.